

Market Assessment

Wau Market, South Sudan

November 2017



vam
food security analysis





TABLE OF CONTENTS

1-3	<i>Executive summary</i>
4	<i>1. Context</i>
5	<i>2. Objective and methodology</i>
5-11	<i>3. Market Structure and Conduct</i>
11-12	<i>4. Response capacity</i>
12-13	<i>5. Induced demands</i>
13	<i>6. Households preferences</i>
13-14	<i>7. Mobile phone coverages</i>
14-15	<i>8. Risk analysis</i>
15	<i>9. Conclusion and recommendations</i>

Executive summary

The April 2017 conflict in Wau resulted in the displacement of about 67,165 people. These people were displaced from Wau town and are currently living in POC (Protection of Civilian site) and other collective centers such as churches. WFP has been providing food assistance to these displaced populations on a monthly basis.

WFP has multiple response options ranging from in-kind assistance to market-based interventions. It is necessary to conduct a market assessment for an informed decision on the intervention modality. Thus this market assessment was conducted in November 2017 in order to understand the functionality of market and to measure the capacity of traders in Wau to respond to the additional demand.

The assessment used traders' surveys, key informant discussions and focus group discussions. Data collection was administered by enumerators using tablets, while the team leaders conducted key informant discussions and a focus group discussion with Chamber of Commerce officials. A total of 55 trader interviews, 8 key informants and 1 focus group discussion were conducted.

According to the Chamber of Commerce officials in Wau, entry to the market requires a trade license which can be obtained from the local government within five working days. About 95 percent of interviewed traders do have trade license to operate in Wau market.

Wau market serves as a distribution hub to supply food commodities to retailers in the market and to other near-by market centers. Currently, number of wholesale traders in the market ranges from 20 to 25 in number while those engaged as both wholesale and retail exceeds 50. Wholesale trade is largely occupied by foreigners; 92 percent of interviewed wholesalers were Sudanese while South Sudanese represent the remaining 8 percent. The existence of many traders in the market is likely to increase competition, which will leave less room for collusion.

The main supply sources of food commodities are Agok/Amiet, Sudan and Juba markets. Agok/Amiet is the main market that serves as informal commercial hub between Sudan and South Sudan. Sorghum grain, wheat flour and sugar are mainly supplied through Agok/Amiet. Maize flour, maize grain and field beans are largely supplied from Juba and Uganda.

On average, it takes about nine days to travel to source markets and bring commodities to Wau, which means wholesale traders can make three rounds of restocking trip in average in a month. The restocking frequency and travel time are shorter during the dry season which is linked to high demand, relatively better road conditions and ease of transport facilities. The travel time and restocking frequency of wholesalers concur the information obtained from key informant discussions.

Compared to last year, 60 percent of wholesalers reported that their trade volume had decreased mainly due to insecurity (47 percent), low purchasing power of households (28 percent), constraints of commodity supplies (8 percent), reduced demand from other markets (8 percent) and other factors (9 percent). The distribution of humanitarian assistance was considered as second most reason for decreased trade volume by 2.8 percent of respondents.

When asked about changes in demand, about a third of traders mentioned the insufficiency of existing demand to sustain business. The introduction of market-based response option is likely to increase

effective demand of households, and thus the increase of induced demand through cash based transfer is likely to contribute to stimulate the local economy and also to address the sustainability concern of traders.

About 48 percent of traders mentioned that prices are determined individually, while 45 percent indicated traders in the market set ranges of prices (minimum and maximum) and individuals choose within that interval. The remaining 7 percent reported wholesalers in the market set selling prices. Generally, there is no clearly defined collusion behavior to fix prices.

The analysis of price indicates that from July to September, sorghum prices climbed up beyond seasonal indices, which implies the need of transfer value adjustments. Prices were generally unstable; however, the volatility of prices were within the minimum and maximum bands, with exceptions during the crisis periods where prices were too volatile.

About 85 percent of interviewed traders have no experience of working in any voucher based programmes. However, 68 percent of these trades are willing to participate in food voucher programme. In response to the main concern to participate in voucher programmes, a third of interviewees indicated reliability of timely payment as the first concern. In an economic crisis situation where the local currency depreciates rapidly, delay in redemption weakens the response capacity of traders. Other concerns include insecurity, prices instability and limited availability of commodities during peak rainy months (July-September).

Interviewed traders were also asked to suggest number of days to redeem voucher payments, in case food voucher programme will be introduced. Accordingly, 35 percent of traders demanded them to be redeemed within three weeks, 32 percent in one month and the remaining 33 percent within 50 days. Given the economic crisis in the country and depreciation of local currency, the redemption period needs to be within reasonable time to minimize the cost of delayed payments. Longer redemption might lead traders either to withdraw or to find alternatives that may impact beneficiary households.

An additional demand from targeted beneficiaries could reach 37 percent of average monthly trade volume for cereal and cereal products; however, this percentage would be lower if we consider the highest trade volume. For other food commodities, the additional demand is below 25 percent of monthly trade volume. As the ongoing distribution of half-ration by WFP is not sufficient to meet households' needs, it is likely that some of these households complement it with purchased food. Acknowledging these factors on ground and the number of wholesalers, the average induced demand is likely to be absorbed by the market without adverse effect.

Based on the identified risks of market-based intervention, the following mitigation measures and recommendations are proposed.

1. The rainy season is associated with longer restocking time and high transport costs. Additionally, the possibility of stockpiling during the dry season to meet rainy season demand is compromised by the insecurity environment in the country. As a result, there is a need for a contingency plan to switch to in-kind assistance during the peak rainy season (July-September).
2. Monitor the situation along the supply routes, to see the continuity of the existing Agok/ Amit “informal” cross-border trade, or advocate for the reopening of formal trade between Sudan and South Sudan.
3. Provide a preferential advantage to local retailers during the selection of traders, should WFP introduce food voucher programme. Furthermore, inclusion of many traders is likely to increase competition and hence generate better service.
4. Analyze key supply chain bottlenecks through a retail strategy to strengthen the relationship between wholesale and retail traders, as well as other market actors engaged along the chain.
5. Selection of areas for market-based response options should not concentrate in specific geographical areas that share the same source market. Alternatively, any further expansion of cash based modality in the area should look at different options, such as mixed transfer options, to safeguard the pressure on supply sources and unnecessary costs incurred by non-beneficiary households.
6. Create awareness among traders about the long term benefits of the programme through discussions with traders operating in the market. Simultaneously, strong market monitoring mechanism should be in place.

1. Context

The ongoing economic crisis in the country along with the hyperinflation has caused an increase in the cost of living. In South Sudan, food and non-alcoholic beverages constitute the highest weight (71.39 percent) in the computation of consumer price index, which indicates food prices are the main factor driving the inflation rates. The overall country level year-on-year inflation rate reached the maximum of 549 percent in September 2016¹ and the highest food inflation rate of 513 percent in December 2016. The lowest rate of inflation in Wau was recorded in August 2017 where the overall inflation was 102 percent and food inflation of 92 percent². Additionally, in the last few years, the local currency has lost its value both at the official and parallel markets. In September 2017, the official exchange rate of US Dollar to South Sudanese Pound (SSP) increased by 108 percent compared to the same month in 2016, while the parallel market rate increased by 190 percent. In September 2017, one US Dollar was exchanged at SSP 118 and SSP 182, respectively at official and parallel markets in Juba. As a significant amount of food comes through import, the exorbitant exchange rate on parallel market has contributed to a rise in the cost of living that affects the purchasing power of households.

According to the Integrated Food Security Phase Classification (IPC)³, some 45 percent of the people in South Sudan were classified in IPC crisis, emergency or catastrophe phases during the period October to December 2017. The state level IPC classification depicts 67 percent of the population in Western Bahr el Ghazal as severely food insecure, with 15,000 in Humanitarian Catastrophe. The worsening situation is attributed mainly to the protracted conflict that affected farming activities and the ongoing economic crisis.

South Sudan depends on significant food imports, as local production is inadequate to meet its food requirements, and the one commodity (oil) providing benefit to the government lost its value on international markets. The disruption of oil export and agricultural activities have impacted the overall economic situation of the country. FAO/WFP Crop and Food Security Assessment mission to South Sudan (April 2017) indicates that the country has a total deficit of 498,801 metric tons in the year 2017. The same report mentioned Western Bahr el Ghazal having a cereal deficit of 18,987 metric tons⁴. This cereal deficit is basically expected to be met through imports. The main crops grown in Western Bahr el Ghazal are sorghum (46%), cassava (27%), groundnuts (10%), sesame (11%) and maize (6%).

The prevailed political instability and economic crisis have continued to impair the food security situation of households. The conflict in Wau (April 2017) displaced about 67,165 people mainly from Wau town. The IDPs are living inside POC and other collective centers such as churches. During the day time, the IDPs engage in their normal activities in the town; however, in the evening they move to POC and collection centers in fear of insecurity. WFP assists these people by distributing in-kind food assistance (cereal, pulse, cooking oil and salt).

¹ It was also reported by trading economics (<https://tradingeconomics.com/south-sudan/indicators>) that inflation was the highest in September 2016, reaching 836 and food inflation 1002.

² The Republic of South Sudan National Bureau of Statistics.

³ IPC Communication Summary – October 2017

⁴ FAO/WFP Crop and Food Security Assessment Mission to South Sudan, April 2017 (Draft).

2. Objective and methodology

2.1 Objective

WFP has multiple response options ranging from in-kind assistance to market-based interventions. The decision on intervention modality is made based on the findings of market assessment. Market assessment considers many factors, like availability of staple foods, beneficiaries' access to market, price stability, trader types, market response capacity and other issues that impact the functionality of the market. The objective of the assessment was to understand the functionality of markets and to assess the capacity of traders to respond to cash transfer, should WFP switch from in-kind assistance to cash based transfer to support IDPs in Wau.

2.2 Methodology

The assessment is mainly based on traders' interviews, key informant discussion and focus group discussion. A structured questionnaire was employed to interview selected traders in the market. Wau has three market locations, namely Jau, Hajar and Wau. Jau market is the biggest market center where wholesalers and retailers are based. The other two locations are small retail markets. The assessment has covered Jau market where wholesalers, retailers, and those practicing "mixed" trade (wholesale and retail) operate. Data collection was administered by enumerators using tablets while the team leaders conducted key informant discussions with wholesalers and a focus group discussion with Chamber of Commerce officials. A total of 55 trader interviews, eight key informant discussions and one focus group discussion were conducted. Given that most whole sale traders in the market are foreigners, mostly from Sudan, enumerators who speak Arabic language were selected to conduct interviews. Training of enumerators and actual field work were carried out from 31st October to 4th November 2017.

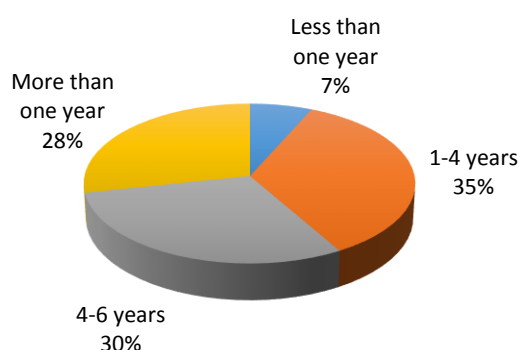
3. Market Structure and Conduct

3.1 Market entry and exit

In Wau, entry to the market as food trader requires a trade license. Local administration in the town issues both wholesale and retail trade license. According to the Chamber of Commerce officials in Wau, obtaining a license from the local government takes less than five working days. About 95 percent of interviewed traders had trade license to operate in Wau market. The requirements for trade license are availability of work place, working capital and a supporting letter from the Chamber of Commerce. In order to obtain trade license and join the market, one has to pay license fee to the Government; wholesalers pay SSP 4,000 and retailers SSP 2,500. Though disparities were observed, 57 percent of wholesalers, 86 percent of "mixed" traders and 50 percent of retailers reported paying an amount close to that mentioned by Chamber of Commerce officials. However, other traders declared paying a higher license fee.

Currently, wholesale traders in the market are about 25 in number. Conflict in April 2017 caused some foreign wholesale traders to exit the market. As is also the case in other markets in South Sudan, wholesale trade in Wau is mainly occupied by foreigners. Among the interviewed traders, 21 out of 23 wholesalers were Sudanese while the rest were South Sudanese. The proximity of Wau to Sudan border could be one contributing factor for Sudanese nationals to dominate the wholesale food market. The retail trade and those categorized as “mixed trade” sector is run by both South Sudanese and foreign traders. About 77 percent of interviewed wholesalers kept records of their business transactions. Figure 1 indicates the number of years that interviewed traders had been in the business. About 58 percent of the respondents had more than four years of experience. The higher the number of years in the business, the more likely that traders had the knowledge to increase trade volumes and strengthen their business connection with source market traders.

Figure 1. Number of years in business

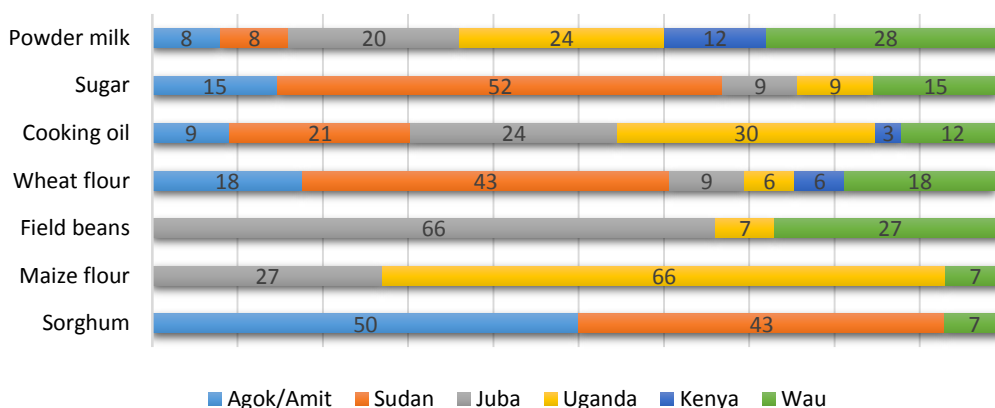


Source: WFP, Market assessment, November 2017

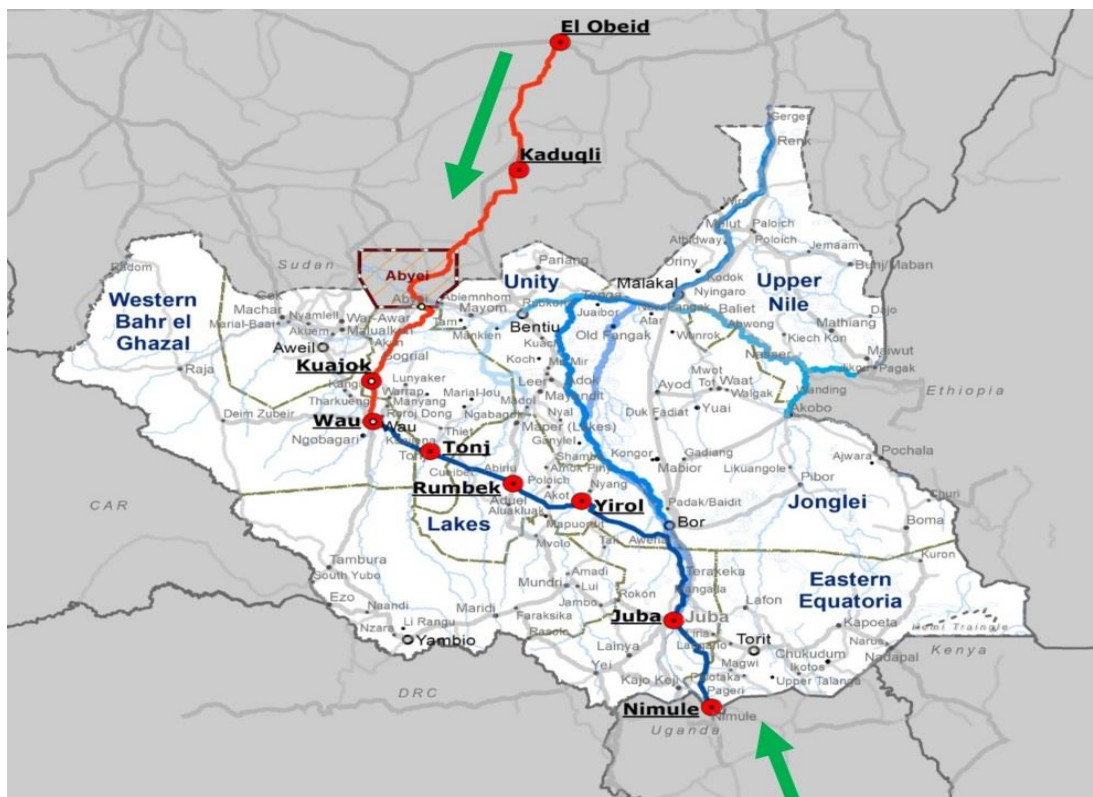
3.2 Product types and source markets

Availability of wide range of food commodities was observed in the market. These included grains (sorghum, maize, wheat, field beans, broad beans, groundnuts and lentils), processed food (sugar, cooking oil, wheat flour, maize flour, powder-milk, canned food, etc.), dried fish, vegetables and fruits (onion, green leaves, tomatoes, etc.). As the assessment period coincided with a seasonal harvest season, locally produced grain such as groundnuts and sorghum were available in the market. Furthermore, humanitarian food assistance commodities were also observed in many of the shops.

Figure 2. Commodity by source markets (traders response - %)



It is known that the formal trade between South Sudan and Sudan ceased in 2012. However, the informal trade continues through different crossing points and temporary solutions created along the border areas. Amiet is the main market that serves as informal commercial hub between Sudan and South Sudan. Reportedly, it is a temporary market at the crossroads, where no established infrastructure exists as there are often security issues. For this reason, traders do not offload their goods immediately on arrival but wait until they have a buyer (WFP Market Assessment Report – January 2017). As also indicated in the report, a Joint Peace Committee between South Sudan (Ngok) and Sudan (Missiriya) has recently reduced the tension between the two ethnic groups, granting investigations and giving compensations to the affected in case of violence, and securing the access to water for the pastoral tribes. In cases of violence, the main market Amiet can remain closed for a couple of days until the Committee settles down the dispute. As depicted in Figure 2, source markets of the main staple grain, sorghum, and a significant percentage of processed foods (wheat flour, cooking oil, sugar) are Sudan and Agok/Amiet. Agok/Amiet market gets commodities that originate from Sudan, mainly in El Obeid market.



Equally important, Uganda is the main source market of food commodities entering South Sudan. In Wau, food commodities that largely originate from Uganda and come through Juba are maize flour, field beans, cooking oil and powder-milk. Given the overall bad road conditions in the country, Wau traders have mentioned that the road from Agok/Amiet to Wau is better compared to Juba-Wau road conditions. Hence, most of these traders prefer to obtain commodities from Agok/Amiet market. Furthermore, Wau wholesalers have strong networks with their suppliers in Sudan where commodity orders are usually done through phone calls. As long as the trade routes are functional and safe, these source markets do not change by season. However, the volume of trade varies by season.

Retailers source most of their commodities from wholesalers in Wau while few retailers with better capacity reported that they source items from Agok/Amit and Juba. From the key informant discussions, it was understood that some of the wholesalers render short term in-kind loan to retailers where retailers pay back the money after selling commodities. In cash based transfer modalities, the existence of such practices help retailers to supply commodities and hence there is a need to explore the most workable options that strengthen and increase efficiencies of business transactions between wholesalers and retailers.

3.3 Restocking frequency

The restocking frequency depends on many factors such as demand, capital, storage capacity, season, transport and travel time. On average, it takes about nine days to travel to source markets and bring commodities to Wau, which means wholesale traders can make on average, three rounds of restocking trip in a month. The restocking frequency and travel time are shorter during the dry season which is linked to high demand, relatively better road conditions and ease of transport facilities. The travel time and restocking frequency reported by wholesalers concur with the information obtained from key informant discussions. As the rainy season approaches, some wholesalers keep as much stock as they can to minimize transport costs and related challenges. Given the lower trade volume and capital constraints, retailers restock more frequently compared to the other two trader groups.

3.4 Customers and trade volumes

In the Western trade corridor, Wau is the biggest market that serves as distribution center to markets within the state and neighboring states. The analysis showed that 57 percent of the customers to wholesalers are traders, which indicates that wholesalers are serving as supply source to retailers in the town and other near-by markets. Their remaining 43 percent customers are consumers, mainly hotel and restaurants who buy in bulk. Traders classified as “mixed”⁵ primarily supply own shops; however, 9 percent of their main customers are retail traders. Consumers represent the highest percentage (96 percent) of customer to retailers and 73 percent to traders classified as “mixed” traders.

During the assessment, information on volumes of trade were collected to estimate an educated-guess of the monthly trade volumes. Table 1 provides estimated monthly trade volume of commodities transacted by wholesale traders. Compared to the last year, 60 percent of wholesalers reported that their trade volume had decreased mainly due to insecurity (47 percent), low purchasing power of households (28 percent), constraints of commodity supply (8 percent), reduced demand from other markets (8 percent) and other factors (9 percent). Only 2.8 percent of respondents cited the distribution of humanitarian assistance as second most reason for decreased trade volume. As elaborated in the previous section, Wau market serves as distribution center for retailers in near-by markets. Wholesalers in the market do have big capacity storage⁶ facilities that can accommodate as much as 1500 metric tonnes. It was observed that most of these storage facilities were well stocked with significant volume of commodities.

⁵ Mixed trader refers to those traders who operate both wholesale and retail business.

⁶ The observed storage facilities are constructed using bricks and corrugated iron. The cleanliness and ventilation of these storage facilities are not to the standard level. Commodities are stacked over plastic sheet, and there is no a practice of using palates.

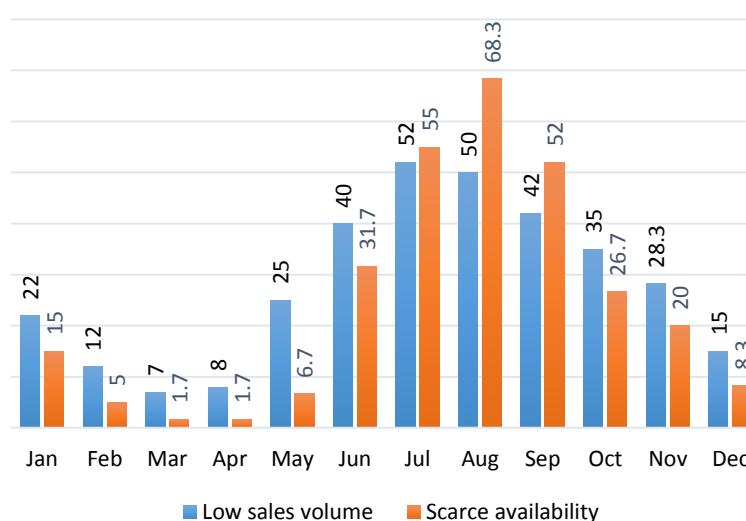
Furthermore, 6-8 trucks (20 metric tonnes capacity) offloading food commodities were seen on daily basis during the assessment.

Table 1. Estimates of monthly traded volume (MT)

	Sorghum Grain	Maize Grain	Rice	Wheat Flour	Maize Flour	Field Beans	Sugar	Cooking Oil	Powder Milk
Maximum	1076	65	121	764	41	418	530	718	2
Minimum	914	65	108	678	26	275	464	506	2

Additionally, the assessment tried to capture seasonal differences on sales volume and availability of staples in the market. About 40 to 50 percent of interviewed traders mentioned sales volume is lower during the peak rainy season. On the other hand, it was mentioned that availability of staples in the market becomes scarce in the months of July to September. During the rainy season, the poor road conditions and low purchasing power could be the reasons behind low sales volume. Figure 3 provides an indication on how low sales volume and scarcity of staples by months are

Figure 3. Low sales volume and food scarcity months (traders response - %)



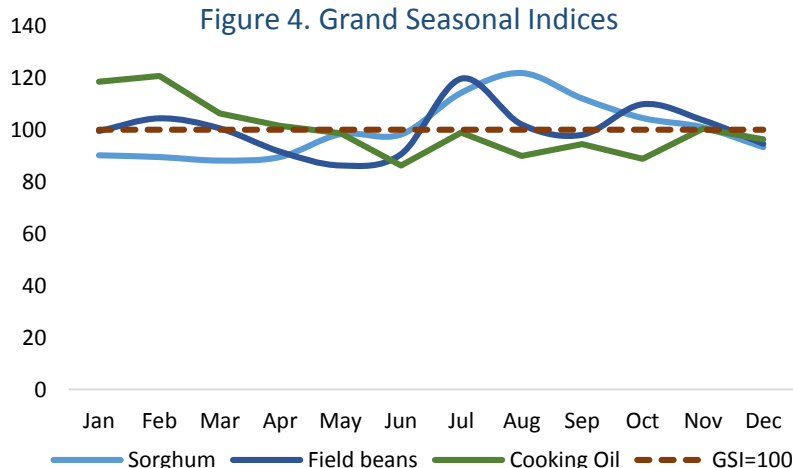
correlated. The low sales volume could be improved through improving purchasing power of households through cash and voucher programme. However, the scarcity of commodities in the market during July – September could be a concern to implement cash and voucher programme.

3.5 Price analysis

3.5.1 Price seasonality

Understanding price seasonality is helpful in programming market-based response options by considering price behavior during the different months of the year. The seasonal index helps to understand price seasonality and also to forecast prices and to plan for times of the year when transfer

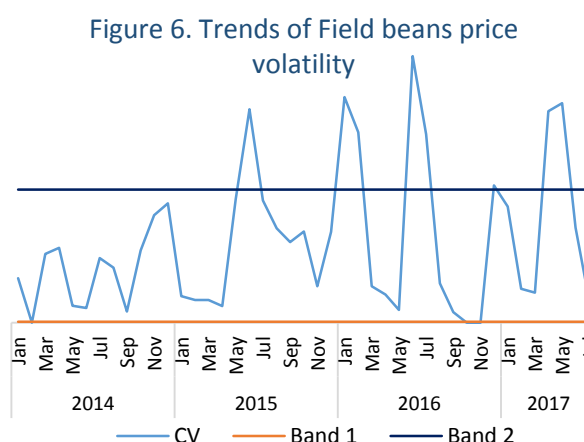
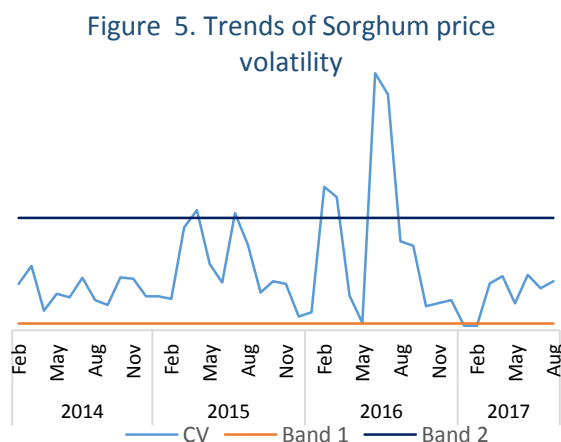
Figure 4. Grand Seasonal Indices



value adjustment is likely to happen. Figure 4 shows the grand seasonal indices⁷ which indicate the months when prices go beyond the seasonal index and hence suppose a need for transfer value adjustment. The Grand Seasonal Index (GSI) of sorghum stood above the value of 100 from July to September which indicates that price increases are expected to occur in these months. Similarly, the graph depicts the behavior of field beans and cooking oil prices as well.

3.5.2 Price volatility

Coefficients of variation⁸ is another price analysis element to measure the dispersion of prices from their average. The coefficient of variation provides useful hints to assess how prices change through the market in space and time. The price variability signals the stability of prices to make informed decision and hence provides evidence to support market-based response options. The analysis of coefficients of variation for sorghum, field beans (Figure 5 and 6) and cooking oil remained within the lower and higher bands in most of the analysis period. The prices were out of the bands in few months that coincided with occurrence of different crises in the country. However, in general, prices in South Sudan are generally high and unstable. On the other hand, analysis of market integration indicates Wau market is highly integrated with supply source market of Juba. The coefficients of correlation⁹ of sorghum and field beans is 0.84 and for cooking oil, the value is 0.94. These values are above the rule of thumb value, 0.60. Based on available prices data, attempt was also made to analyses market integration between Wau and Kadugli¹⁰ markets, where the result shows a strong correlation coefficient value (0.85).



3.5.3 Price determination

Responses regarding the price fixing behavior were mixed. About 48 percent of traders mentioned that prices are determined individually while almost the same percentage (45 percent) indicated traders in the market set range of prices (minimum and maximum) so that individuals can select within that range. The remaining 7 percent reported that wholesalers in the market set the selling prices. From these responses,

⁷ Grand Seasonal Index is an average of the monthly seasonal indices for the analysis period and it shows the seasonal behavior of price within one agricultural season.

⁸ Coefficients of variation is calculated as the ratio of the standard deviation to the mean; it measures the dispersion of prices from their average.

⁹ Correlation coefficients measures the relationship of prices. A correlation coefficient value above 0.6 indicates strong relationships.

¹⁰ Kadugli is located between El Obeid and Amiet, one of supply sources to Wau. It is along the road to Amiet and hence price in this market serves as a proxy to price in El Obeid, source market to Amiet.

it is understood that there is no clearly defined collusion behavior to fix prices. The existence of a good number of traders in the market also poses a challenge to fix one price by all.

4. Response capacity

In the analysis of market response capacity, it should be noted that wholesalers play paramount role to increase trade volumes. In the processes to increase trade volume, there are many factors that need to be considered, which include effective demand of consumers, proximity to source market, storage facility, access to loan, road conditions, working capital and insecurity, amongst others. Traders were asked about their experience on changes in demand and, accordingly, about 85 percent of traders reported a decrease in demand due to high cost of living. Additionally, 33 percent of interviewed traders have indicated that the existing demand is not sufficient to sustain business. The introduction of market-based response option will have a positive impact by increasing effective demand of households. Additionally, an increase in induced demand from the introduction of market-based intervention will stimulate the local economy and also address a concern of traders about their business sustainability.

In the past two years, about 50 percent of traders have received credit to run their business. The sources of credit were relatives and friends (47 percent), suppliers (37 percent) and banks (16 percent). The low percentage of credit from banks could be associated with the on-going economic crisis in the country. On the other hand, some of the wholesalers in the market do have family business in Juba or Sudan, and thus these traders might have less appetite for credit. The availability of loan from supplier, relatives and friends, which is based on mutual trust, could be considered as good opportunity for quick trade volume increases, how and when needed.

About 85 percent of interviewed traders have no experience of working in voucher based programmes. However, 68 percent of these trades are willing to participate in food voucher programme. As a concern to participate in voucher programmes, a third of respondents indicated reliability of timely payment by implementing agency as the most important concern. In an economic crisis situation where the local currency depreciates rapidly, delay in redemption weakens the response capacity of traders. Other concerns include insecurity, prices instability and limited availability of commodities during peak of rainy months (July –September). Figure 7 depicts the time frame that traders need to respond to a 50 percent additional demand. About 70 percent of traders reported that they can respond within one to two weeks, which is in line with the potential to increase restocking frequency to about three times a month.

Traders were also asked to suggest the number of days to redeem voucher payments, should WFP introduce voucher programme. Figure 8 provides the number of days' traders proposed for redemption of voucher values. 35 percent of traders would need them to be redeemed within three weeks, 32 percent in one month and the remaining 33 percent within 50 days. Thus, given the economic crisis in the country and continuing depreciation of local currency, the redemption days need to be within reasonable time to minimize the cost of delayed payments. Longer redemption days might lead traders either to withdraw or to find alternatives to compensate lost values at the expense of beneficiaries.

Figure 7. Time frame to respond to 50% demand increases

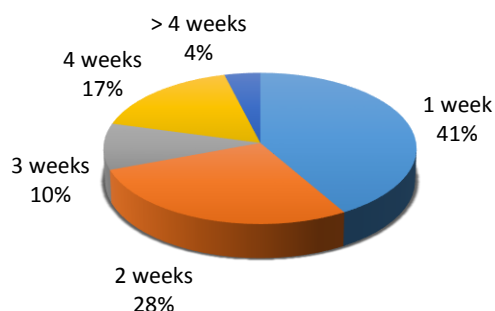
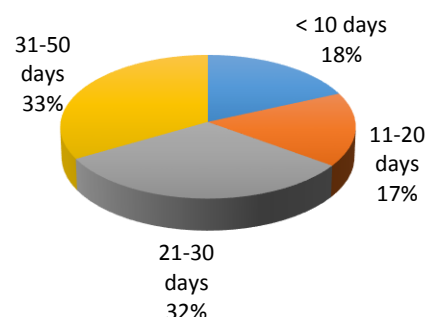


Figure 8. Proposed number of redemption days



5. Induced demands

After the recent crisis in Wau town, 67,165 people (about 11,194 households) were displaced from home and are receiving WFP food assistance on a monthly basis. These households are urban residents and their expenditure pattern might be different from rural households. They are likely to buy diversified food commodities compared to rural households. FSNMS (Food Security and Nutrition Monitoring System) data of Wau County (Round 20) is used to calculate the expenditure pattern and induced demand¹¹ of targeted households. Furthermore, the induced demand is compared with the existing capacity of the market as well as to the potentials for expansion. Table 2 provides a summary of monthly estimated additional demand, traded volume and the potential of trade volume expandability.

Table 2. Response capacity of traders and market

	# of Beneficiaries	# of Traders*	Monthly induced demand (Mt)			
			Cereal**	Pulse	Sugar	Cooking Oil
	67,165	69				
Induced demand			671	58	27	75
Traded volume (minimum)			1792	275	464	506
Potentials						
% of traded volume			37.4	21.1	5.8	14.8
Induced demand/Trader (Mt)			9.72	0.84	0.52	1.09
*Number of traders include both wholesalers and those doing both wholesale and retail						
** includes cereal and cereal products						

¹¹ The transfer value is calculated based on the prices of sorghum, field beans and cooking oil, and hence the induced demand of 67,165 beneficiaries.

As indicated in Table 2, the induced demand is 37.4 percent of the trade volume¹² in the market for cereal and cereal products, while the value is lower for other commodities. The Cash Learning Partnership's Minimum Standard for Market Analysis guideline indicates that an additional demand of up to 25 percent in urban center markets is easily absorbed and is less likely to have an adverse impact on markets. However, depending on the number of wholesale traders, road networks, storage facility, restocking frequency and other factors, the recommended value is likely to change. Considering the conservative trade volume (minimum), an additional demand of targeted beneficiaries would reach 37 percent of monthly trade volume; however, if we consider the highest value of the monthly trade volume, the percentage goes down. As indicated on Table 2, each wholesaler in the market will be expected to increase monthly trade volume by 10 metric tonnes for cereal and cereal products and almost 1 metric tonnes for other listed items. Given the current trade volume, it is not difficult for these traders to ensure supply of additional quantities in the market. The on-going distribution of half-ration food to IDPs is not sufficient to meet households' food need and it is likely that some of these households complement it with purchased food. Recognizing these factors on ground and the number of wholesalers, the average induced demand indicated in the above table is likely to be absorbed by the market without adverse effect. Furthermore, the more diversified food commodities the IDPs buy, the lower will be the percentage of cereal and cereal products mentioned in the Table 2. On the other hand, interviewed traders have mentioned the capacity to increase their current trade volume on average by 66 percent, which is far higher than the estimated additional demand.

6. Households preferences

The assessment has captured the opinion of communities through focus group discussion held with men and women who had previous experience in receiving cash assistance from humanitarian organizations. According to their experiences, about 90 percent of women in POC preferred cash over in-kind, while 90 percent of women in one of the collection centers preferred a combination of both cash and in-kind. The main reasons for choosing cash over in-kind were greater flexibility to purchase quality food based on household tastes and preferences, and the ability to prioritize household needs (education, medical expenses). Women also argued that cash assistance was less likely to cause household conflicts, but rather, would ease tensions as cash can be used to solve some of the household financial challenges.

On the contrary, majority of men from both groups preferred in kind over cash. They perceived that cash could be easily eroded by inflation, in-kind assistance was less likely to cause intra household conflict compared to cash, and in-kind was less likely to be wasted than cash.

7. Mobile phone coverages

A significant proportion of households have reported having access to mobile phones. The focus group discussion participants estimated that more than 50 percent of the households have at least one member who owns a mobile phone. However, in all the focus group discussions, respondents highlighted that majority of mobile phone owners were not able to read or send text messages.

The mobile networks which are available in the areas include Vivacel, MTN and Zain. Vivacel was reported to be the most preferred network as it is relatively less costly, has regular network coverage, provides air

¹² Traded volume was estimated based on the response of interviewed traders, and then the average estimates were adjusted using a standard deviation. Thus, the traded volumes indicated in Table 2 are the lowest values.

time credit and allows for international calls without connectivity problems. On the other extreme, MTN was the least preferred network as it was much more expensive compared to the others. The absence of electricity in both camps also limits the capacity to utilize mobile phones because charging them comes with a cost.

8. Risk analysis

Market analysis helps to understand the functioning of the markets and it provides critical information to make informed decisions. However, the inherent dynamism in market system may also bring unforeseen circumstances specifically in unstable political environment. Thus, identifying the most likely risk factors is helpful for early warning and for actions to be taken. The following risks are identified, which requires monitoring of the market situation.

1. The existing trade between Sudan and South Sudan is considered as “informal”. Food commodities arriving in Wau are sourced from Sudan through Agok/Amiet, and hence any disruption in the informal trade routes will have significant impact on flows of food commodities.
2. Changes in exchange rate between local and foreign currencies will have direct impact on cost of doing business and prices of commodities in the market.
3. Road condition from source market to Wau gets worse during the peak rainy season, which has implication on the cost of transport and hence prices of commodities.
4. Food commodity business in Wau is influenced by foreign traders and the introduction of cash programme will benefit less the capital constrained local traders. With the deepening of economic crisis, this situation might create conflict of interest.
5. In the context of South Sudan, humanitarian food assistance has had significant contribution in stabilizing food prices. The expansion of market-based response options across many locations that get supply from the same source, will be likely to put pressure on supply sources and hence cause increase in prices.
6. At the beginning of market-based intervention programme, short-lived prices increase is likely to occur in the market and concerns are likely to come from different directions.

In order to avert or minimize the impacts of the above major risks, the assessment team proposes the following measures:

- a) Consistently monitoring the functioning of Agok–Wau trade routes and plan accordingly how and when the situation is likely to change.
- b) The rainy season is associated with longer restocking time and high transport costs. Additionally, the possibility of stockpiling during the dry season to meet rainy season demand is compromised by the insecurity environment in the country. As a result, there should be contingency plan to switch to in-kind during the peak rainy season (July-September).
- c) Selection of areas for market-based response options should not concentrate in a specific geographical area that get supply of commodities from the same market. Alternatively, any further expansion of cash based modality in the area should look different options such as mixed transfer options to safeguard the pressure on supply sources and unnecessary costs incurred by non-beneficiary households.

- d) d) Create awareness about the long-term benefits of the programme and hold discussions with wholesale traders and retailers engaged in the programme. Simultaneously, monitoring the market dynamics and transfer value adjustment should be in place.

9. Conclusion and recommendations

In spite of the political instability and economic crisis in the country, the business community has confronted the reality and tried to maintain their business within the circumstances.

The main objective of this market assessment was to understand the response capacity of traders and explore the feasibility of market-based interventions in Wau market. The targeted beneficiaries for the market-based interventions are 67,165 IDPs settled in UNMISS POC and other collective centers in Wau town. Based on the analysis of data and key informant discussions, the following conclusions are made:

- 1) There are many food commodity traders in Wau market and thus the likelihood of collusion among traders is very minimal. Furthermore, the market also serves as a distribution hub to other markets within the state and other neighboring state markets.
- 2) The existence of foreign wholesale traders who have business connection with source market traders (at their home country) can be considered as an added advantage to increase trade volumes, how and when required. Furthermore, the availability of big capacity storage facilities provides the opportunity to stockpile commodities (depending the security situation).
- 3) Bad road conditions coupled with the informal cross-border trade might have a negative repercussion on the efficiency of traders to supply commodities, during rainy months.
- 4) With the conservative estimates of monthly trade volume, the induced demand coming from the proposed market-based intervention is believed to be easily absorbed and managed within the expandability of trade volume.

Finally, the assessment concludes that the Wau market has capacity to respond to the additional demand coming from 67,165 IDP beneficiaries. Any expansion of market-based interventions above the current caseload is not recommended for implementation in Wau in the near future. Furthermore, the following points are recommended for the smooth implementation of voucher programme in Wau:

- 1) Monitoring the situation along the supply routes, to control the continuity of the existing “informal” cross-border trade, or advocate for the reopening of formal trade between Sudan and South Sudan.
- 2) Analyze key supply chain bottlenecks through a retail strategy to strengthen the relationship between wholesale and retail traders, as well as other market actors engaged along the chain.
- 3) Prepare a contingency plan to switch the transfer modality to in-kind during the peak of rainy months (July – September).
- 4) Organize a discussion with the Chamber of Commerce and traders in the market before the programme intervention about the overall programme strategy and implementation modality.
- 5) If voucher is introduced, redemption of voucher value should be done within acceptable number of days to address the need of the contracted traders.